

REMARKS

Attached hereto is a marked-up version of the changes made to claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

Claims 1-19 were originally filed. In the Restriction Requirement, the Examiner requested Applicants to elect the claims corresponding to one of the following inventions:

Group I (claims 1-8) drawn to isolated cDNA, an antigenic epitope, a probe, a vector, and a host cell.

Group II (claim 9) drawn to a method of producing a protein.

Group III (claim 10) drawn to a transgenic cell line.

Group IV (claims 11-13) drawn to a method of detecting differential nucleic acid expression in a sample using a cDNA.

Group V (claims 14-16) drawn to a method of screening using cDNA.

Group VI (claims 16-17) drawn to a protein and composition.

Group VII (claims 18-19) drawn to a method of screening using a protein.

Group VIII (claim 20) drawn to a method of preparing an antibody.

The Examiner further requested that if Applicant elects Group I, Applicant is required to elect a single species of cDNA, species A-3, elected from SEQ ID NOs:1-29, respectively.

In response to the restriction requirement, Applicants elect the claims of Group I (claims 1-8) with traverse. Applicants submit that the invention encompassed by the claims of Group I (drawn to cDNAs, antigenic epitope, probe, vector and host cell) could be examined at the same time as the inventions encompassed by the claims of Groups II-V. For example, a search of the prior art to determine the novelty of the cDNAs, antigenic epitope, probe, vector and host cell, would also provide information regarding their methods of use as recited in the claims of Groups II, IV and V, as well as a transgenic cell line using the vector of claim 7, as recited in claim 10 of Group III.

Accordingly, because the searches required to identify prior art relevant to the claims of Groups I-V would substantially overlap, Applicants respectfully submit that examination of originally filed claims 1-16 would pose no undue burden. Thus, Applicants request reconsideration and withdrawal of the Restriction Requirement and examination of the claims in Groups I-V.

Applicants object to the severe restriction of species required by the Examiner, and submit that it is inconsistent with proper Markush practice. The Examiner's attention is directed to the Patent Office's

own requirements for Markush practice, set forth in the 7th edition of the M.P.E.P. (July 1998) at § 803.02 regarding restriction requirements in Markush-type claims:

PRACTICE RE MARKUSH-TYPE CLAIMS

If the members of the Markush group are **sufficiently few in number or so closely related** that a search and examination of the entire claim can be made without serious burden, the examiner must examine all claims on the merits, even though they are directed to independent and distinct inventions. In such a case, the examiner will not follow the procedure described below and will not require restriction. (Emphasis added)

Since the decisions in *In re Weber*, 580 F.2d 455, 198 USPQ 328 (CCPA 1978) and *In re Haas*, 580 F.2d 461, 198 USPQ 334 (CCPA 1978), it is improper for the Office to refuse to examine that which applicants regard as their invention, unless the subject matter in a claim lacks unity of invention. *In re Harnish*, 631 F.2d 716, 206 USPQ 300 (CCPA 1980); and *Ex parte Hozumi*, 3 USPQ2d 1059 (Bd. Pat. App. & Int. 1984). Broadly, unity of invention exists where compounds included within a Markush group (1) share a common utility and (2) share a substantial structural feature disclosed as being essential to that utility.

This subsection deals with Markush-type generic claims which include a plurality of alternatively usable substances or members. In most cases, a recitation by enumeration is used because there is no appropriate or true generic language. **A Markush-type claim can include independent and distinct inventions.** This is true where two or more of the members are so unrelated and diverse that a prior art reference anticipating the claim with respect to one of the members would not render the claim obvious under 35 U.S.C. 103 with respect to the other member(s). In applications containing claims of that nature, **the examiner may require a provisional election of a single species** prior to examination on the merits. The provisional election will be given effect in the event that the Markush-type claim should be found not allowable. Following election, the Markush-type claim will be examined fully with respect to the elected species and further to the extent necessary to determine patentability. If the Markush-type claim is not allowable over the prior art, examination will be limited to the Markush-type claim and claims to the elected species, with claims drawn to species parentally distinct from the elected species held withdrawn from further consideration. (Emphasis added).

Clearly the polynucleotides of the invention meet one or more of the above criteria for examination of multiple species in this application. The principle cDNAs, SEQ ID NOs:3 and 10, encoding the polypeptides SEQ ID NOs:1 and 2, respectively, are both few in number, and closely related, as the polypeptides of SEQ ID NOs:1 and 2 are described in the specification as intestinal proteins related to the same rabbit intestinal protein, g1762 (SEQ ID NO:32), and are therefore clearly variants of one another and of the rabbit protein. The election of species between a polynucleotide encoding SEQ ID NO:1 (species A), as recited in claim 1, and the polynucleotide sequence of SEQ ID NO:3 (species C), as recited in claim 3, for example, is clearly unwarranted because SEQ ID NO:3 is described in the

Docket No.: PC-0028 US

specification as a polynucleotide encoding SEQ ID NO:1. Furthermore, as recited in amended claim 3, SEQ ID NOs:4-9 are fragments of the full-length cDNA of SEQ ID NO:3, and SEQ ID NOs:11-15 are fragments of the full-length cDNA of SEQ ID NO:10, and SEQ ID NOs:16-29 are variants of SEQ ID NOs:3 or 10 having at least 80% identity to SEQ ID NOs:3 or 10. SEQ ID NOs:4-29 are therefore also either a part of, or closely related to SEQ ID NOs:3 or 10. Applicants submit that SEQ ID NOs:1-29 therefore meet one or more of the criteria recited in paragraph 1 of § 803.02, and, at the very least, that further restriction of these species should be made provisional as described above in paragraph 3 of § 803.02.

In the event that the Examiner determines that the Restriction Requirement should be maintained, Applicants hereby elect the species of A (drawn to SEQ ID NO:1) relative to the examination of claims 1-8. Applicants reserve the right to prosecute the non-elected claims in subsequent divisional applications. Applicants further submit that if the Restriction Requirement is maintained, that claim 9 (Group II), claims 11-13 (Group IV), and claims 14-16 (Group V) are methods of use of the polynucleotides of claims 1-8 that depend from and are therefore of the same scope as these product claims and should be rejoined and examined on allowance of the product claims in accordance with *Ochiai and Brouwer*. See M.P.E.P. § 821.04 and the Commissioner's Notice in the Official Gazette of March 26, 1996.

Applicants believe that no fee is due with this communication. However, if the USPTO determines that a fee is due, the Commissioner is hereby authorized to charge Deposit Account No. 09-0108.

This form is enclosed in duplicate.

Respectfully submitted,

INCYTE GENOMICS, INC.

Date: July 12, 2001

David G. Streeter
David G. Streeter, Ph.D.
Reg. No. 43,168
Direct Dial Telephone: (650) 845-5741

3160 Porter Drive
Palo Alto, California 94304
Phone: (650) 855-0555
Fax: (650) 845-4166

Version with markings to show changes made

Claim 3 has been amended as follows:

3. (Once Amended) An isolated mammalian cDNA or the complement thereof selected from:
- a) a nucleic acid sequence of SEQ ID NO:3 and SEQ ID NO:10;
 - b) a fragment of SEQ ID NO:3 selected from SEQ ID NOs:4-9; [and]
 - c) a fragment of SEQ ID NO:10 selected from SEQ ID NOs:11-15; and
 - [c)] d) a variant of SEQ ID NO: 3 or SEQ ID NO:10 selected from SEQ ID NOs:16-29
- having at least 80% identity to the nucleic acid sequences of SEQ ID NO:3 or SEQ ID NO:10; and
- d) an oligonucleotide of SEQ ID NOs:3-29].